

UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION

CHOON'S DESIGN INC.,

Plaintiff,

Case No. 14-10848

Honorable Victoria A. Roberts

v.

TRISTAR PRODUCTS, INC.,

Defendant.

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**SECOND ORDER ON CLAIM CONSTRUCTION**

At issue are Choon's Design Inc.'s ("Choon's") 8,485,565 ("565") and 8,684,420 ("420") patents for a "Brunnian Linkmaking Device and Kit" ("Rainbow Loom"), and its 8,622,441 ("441") patent for a portable device to make similar products.

Choon's says the Rainbow Loom has enjoyed success and other companies, including Defendant Tristar Products Inc. ("Tristar"), copied its product.

Choon's loom is a kit described as containing a base and a pin bar or pin bars. Tristar's "Bandaloom" loom is one piece. The parties dispute whether Choon's patents are broad enough to include a one-piece loom such that Tristar's Bandaloom infringes Choon's patents.

This is the Court's second order on claim construction. In the first Order on Claim Construction, the Court construed eight terms, which the parties indicated could aid settlement. See *Choon's Design, Inc. v. Tristar Prod., Inc.*, No. 14-10848, 2016 WL 1626574 (E.D. Mich. Apr. 21, 2016). Settlement attempts were futile.

Now, the parties present additional terms to be construed. This matter is fully briefed, and the Court finds that a second *Markman* hearing is unnecessary to resolve

the parties' disputes. See *CIAS, Inc. v. All. Gaming Corp.*, 424 F. Supp. 2d 678, 682 (S.D.N.Y. 2006) ("A court may, but need not, conduct a *Markman* hearing to determine the scope of the claims"), *aff'd*, 504 F.3d 1356 (Fed. Cir. 2007); see also *Rogers v. Desa Int'l, Inc.*, 166 F. Supp. 2d 1202, 1204 (E.D. Mich. 2001) (same) (collecting cases), *aff'd*, 198 Fed. Appx. 918 (Fed. Cir. 2006).

The terms to be construed (along with the corresponding patent, each party's proposed construction, and the Court's construction of those terms) are summarized in the table<sup>1</sup> below:

<b>Patent</b>	<b>Claim No.</b>	<b>Term</b>	<b>Choon's Construction</b>	<b>Tristar's Construction</b>	<b>Court's Construction</b>
'565	1	opening on a front side	a space or groove on a common, forward facing side of each pin	a space or groove on a forward facing side of each pin	a space or groove on a forward facing side of each pin
'565	1	link	a closed loop	a continuous looped structure without forming an actual knot	a closed loop

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<sup>1</sup> Choon's opening brief sets forth additional terms to be construed; however, those terms are not listed in the table because the parties (in Tristar's response and Choon's reply brief) agreed that those terms need not be construed. Additionally, in some instances, Choon's proposed construction for a term narrowed and/or changed from its opening brief to its reply brief. The table reflects Choon's final proposed construction – as indicated in its reply brief – without setting forth its initial proposed construction in its opening brief.

Patent	Claim No.	Term	Choon's Construction	Tristar's Construction	Court's Construction
'565	9	a clip for securing ends of the series of links together	a connector that is capable of securing ends of a series of links together	Tristar proposes that this term not be construed;  Alternatively, Tristar says that if the term "clip" requires construction, that it be defined as "a device for gripping or holding things together"	a connector that is capable of securing ends of a series of links together
'565	1	supported on <i>(proposed for construction by Tristar only)</i>	Choon's says the Court already decided the construction of "supported on"	attached to but detachable from	the Court resolved the parties' dispute over this term in the first Order on Claim Construction
'565	12	to define a desired relative special relationship between at least two adjacent pins  <i>(proposed for construction by Tristar only)</i>	Choon's says the Court already construed this	to set a chosen distance between at least two adjacent pins	to set a desired alignment between at least two adjacent pins

Patent	Claim No.	Term	Choon's Construction	Tristar's Construction	Court's Construction
'420	1 and/or 3	"base"; "supported on"; "plurality of pins"; "a plurality of pins supported on the base"; "link"; and, "a flared portion for holding a link in place"	the parties agree that these terms should be construed in the same manner as construed for the '565 patent		these terms are construed in the same manner as they were construed for the '565 patent
'420	1	rows of offset pins	Choon's agrees with Tristar's construction	the phrase "rows of offset pins" should require "the alignment of adjacent rows of pins be staggered relative to each other"	the phrase "rows of offset pins" requires "the alignment of adjacent rows of pins be staggered relative to each other"
'420	1	pins . . . extending upward from the base	Choon's says this should be given its plain and ordinary meaning	"pins extending from a pin bar attached to but detachable from a base"	the dispute over this term is resolved by the construction of "base" and "pin bar"
'441	11	clip including inward facing ends	connector with the terminal portions proximate at opening	Tristar agrees with Choon's construction	connector with the terminal portions proximate at opening

## II. STANDARD OF REVIEW & GUIDING PRINCIPLES IN CLAIM CONSTRUCTION

The words of the patent claim define the invention to which a patentee may claim the right to exclude other inventions. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). Claim construction “is the process of giving proper meaning to the claim language.” *Abtox, Inc. v. Exitron Corp.*, 122 F.3d 1019, 1023 (Fed. Cir. 1997). Claim construction is a question of law for the Court to determine. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995).

“The actual words of the claim are the controlling focus” when defining the scope of a patented invention. *Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335, 1344 (Fed. Cir. 1998). In interpreting a claim, the Court should look first to intrinsic evidence – i.e., “the patent itself, including the claims, the specification and, if in evidence, the prosecution history.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Intrinsic evidence is “the most significant source” in determining the “legally operative meaning of disputed claim language.” *Id.* (because “[t]he specification contains a written description of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make and use it[,] . . . the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive. . . .”).

“[A]s a general rule, all terms in a patent claim are to be given their plain, ordinary and accustomed meaning to one of ordinary skill in the relevant art.” *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed. Cir. 2001). “Determining the limits of a patent claim requires understanding its terms in the context in which they were used by the inventor, considered by the examiner, and understood in the field of the invention.” *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1299 (Fed. Cir.

1999). “[U]nless compelled to do otherwise, a court will give a claim term the full range of its ordinary meaning as understood by an artisan of ordinary skill.” *Rexnord*, 274 F.3d at 1342. Moreover, the Court must construe each claim term “consistently with its appearance in other places in the same claim or in other claims of the same patent.” *Id.*

The ordinary meaning of a term may be readily apparent, such that claim construction involves little more than the application of the widely accepted meaning of commonly understood words. *Phillips*, 415 F.3d at 1314. In these instances, general purpose dictionaries may be helpful. *Id.*

If the meaning of the claim limitation is apparent from the intrinsic evidence alone, it is improper to rely on extrinsic evidence other than that used to determine the ordinary meaning of the claim limitation. *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Grp., Inc.*, 262 F.3d 1258, 1268-69 (Fed. Cir. 2001). However, if the court cannot determine the meaning of a term after assessing intrinsic evidence, it may look to other evidence such as expert testimony, articles, and inventor testimony. *Id.* at 1269. “This extrinsic evidence may be used only to assist in the proper understanding of the disputed limitation; it may not be used to vary, contradict, expand, or limit the claim language from how it is defined, even by implication, in the specification or file history.” *Id.* (citations omitted).

### **III. ANALYSIS**

Descriptions of the patents are set forth in the Court’s first Order on Claim Construction. See *Choon’s Design*, 2016 WL 1626574, at \*3-4. The Court incorporates those descriptions by reference here.

## A. The '565 Patent

### 1. “opening on a front side”

The Court construes the term “opening on a front side” in claim 1 of the '565 patent to mean “a space or groove on a forward facing side of each pin.” This is consistent with the plain meaning of the claim language and specification, as well as the construction given by the Patent Trial and Appeal Board (“PTAB”).

Choon's says this term requires the “space or groove” to be “on a *common*, forward facing side of each pin.” In support of its construction, Choon's points to claim 9 of the '565 patent – which requires “a clip for securing ends of the series of links together” – and demonstrative figures in which the openings on each pin face a common direction to argue that “[t]here is only one description of how to utilize a loom to manufacture an item from elastic bands, and that requires the slots be on a common side of each of the pins.”

Choon's proposed construction is undermined in several respects.

First, the plain language of the claim only requires that the opening be on the “front side” of each pin; it does not require that the opening be on a common side of all pins. As Tristar states: “Had Choon's wanted to require the openings to be on a common side, it easily could have said so. It did just that in related U.S. Patent No. 8,936,283; [in that patent], unlike [the '565 patent], claims 4 and 11 recite an “opening on a *common* front side.”

Construing the term “opening on a front side” in the '565 patent to mean the same as “opening on a common front side” in the '283 patent would impermissibly render the word “common” in the '283 patent superfluous. See *Curtiss-Wright Flow*

*Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1381 (Fed. Cir. 2006) (claims should be construed to avoid a construction “that would render additional, or different, language in another independent claim superfluous”); *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir. 2003) (“unless otherwise compelled, . . . the same claim term in the same patent or related patents carries the same construed meaning”); see also *Curtiss-Wright Flow Control Corp. v. Z & J Techs. GmbH*, 563 F. Supp. 2d 1109, 1119 (C.D. Cal. 2007) (“Claims should be constructed so that each word in the claim has meaning.”).

Moreover, because the plain language of the claim term is clear, and does not require that the openings on all the pins face a common direction, it would be improper to import that limitation into the claim from the demonstrative figures. See *Phillips*, 415 F.3d at 1323; see also *SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004) (“[I]t is important not to import into a claim limitations that are not a part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.”).

Tristar’s position is further supported by the fact that the PTAB considered and rejected Choon’s proposed construction:

[Choon’s] contends that the front side recited in claims 1 and 5-11 requires that the openings on all pins face the same direction. We see no such requirement. The phrase “a front side” applies to the pins individually. The pins may have openings facing in different directions relative to one another, although each opening is still on the front side of the pin relative to some common reference point. For example, a loom formed by two parallel rows may include pins having front sides and openings facing a direction outward from a central region of the loom (i.e., the region between the parallel rows). The central region could be the common reference point and the openings on one row would face a direction



opposite the openings on the other row, but all openings would still be located on a front side of each pin facing away from the common reference point.

In an alternate example, a loom may include pins having front sides and openings facing a direction toward a central region of the loom. Again, the central region could be the common reference point, and the openings on one row would face a direction opposite the openings on the other row, but all openings would still be located on a front side of each pin facing toward the common reference point. The common reference point could also be characterized as an exterior region of the loom, such as an end, side, or outer perimeter of the loom. These examples are consistent with the specification, which only requires that “[e]ach of the pins 28 includes a flanged top 38 and a front access groove 40.”

[Doc. 158-6, PgID 7134-35, IPR2014-218, Paper 9 (P.T.A.B. May 20, 2014) (internal citations omitted)].

Choon’s attempts to avoid this construction by pointing out that the PTAB uses the “broadest reasonable interpretation consistent with the specification” (“BRI”) standard, *In re CSB-Sys. Int’l, Inc.*, 832 F.3d 1335, 1341 (Fed. Cir. 2016), which is broader than the *Phillips* standard used here. While this is true, the BRI standard does not allow the PTAB to give an “unreasonably broad” construction that does not reflect a claim’s plain language. *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (citation omitted), *overruled on other grounds by Aqua Prod., Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017). Rather, under the BRI standard, like under *Phillips*, “claims should always be read in light of the specification and teachings in the underlying patent,” and the PTAB’s construction “cannot be divorced from the specification and the record evidence.” *Id.* (citations and quotation marks omitted).

Moreover, “[i]n many cases, the claim construction will be the same under the *Phillips* and BRI standards.” *In re CSB-Sys. Int’l, Inc.*, 832 F.3d 1335, 1341 (Fed. Cir. 2016). *See also Facebook, Inc. v. Pragmaus AV, LLC*, 582 Fed. Appx. 864, 869 (Fed.

Cir. 2014) (“The broadest reasonable interpretation of a claim term may be the same as or broader than the construction of a term under the *Phillips* standard. But it cannot be narrower.”).

That is the case here: the PTAB’s construction under the BRI standard is the same as this Court’s construction under *Phillips*.

## **2. “link”**

Tristar says its construction is directly supported by the specification, which states that “a Brunnian link is formed from a continuous looped structure without forming an actual knot.” See ‘565 patent, 2:31-32. Choon’s says Tristar’s construction is impermissibly broad in light of the PTAB’s construction of “link.” The Court agrees with Choon’s.

The PTAB construed the term “link” in the related ‘420 patent as “one of a plurality of continuous looped structures (i.e., closed loops) connected without forming a knot.” [Doc. 153-8, PgID 6950]. By using “i.e.,” the PTAB limited the construction of the term to “closed loops.” Therefore, because Tristar’s proposed interpretation (i.e., “a continuous looped structure. . .”) is broader than the PTAB’s construction under the BRI standard, it is impermissibly broad. See *Facebook*, 582 Fed. Appx. at 869 (the Court’s construction of a term under the *Phillips* standard cannot be broader than the PTAB’s construction under the BRI standard). Moreover, nothing in the claims requires that the link be devoid of a knot.

Choon’s construction (“a closed loop”) is consistent with the claim language and the PTAB’s construction of the term.

Accordingly, the Court construes “link” to mean “a closed loop.”

### **3. “a clip for securing ends of the series of links together”**

In the first Order on Claim Construction, the Court construed the term “at least one clip . . . for securing ends of the series of links together” in the ‘441 patent, as follows:

The Court finds that “clip” means “connector,” and “at least one clip” means “one or more connectors.” The plain and ordinary meaning prevails. Further, “for securing” is a functional recitation and thus merely a statement of purpose or intended use. However, to the extent the language refers to the essence of the invention, the structure (“clip”) is construed so that it is capable of performing the recited function (“for securing. . .”).

*Choon’s Design*, 2016 WL 1626574, at \*8.

There is no reason to depart from this construction. The plain and ordinary meaning of “clip” – i.e., connector – prevails. And the specification provides intrinsic support for Choon’s position that the functional recitation “for securing” is a limitation that relates to the essence of the invention: “Referring to [figures] 15 and 16, once the link is created, the clip [] is used to secure the ends such that the fabricated chain of links does not come undone.” See ‘565 patent, 4:29-31.

Because the “securing” requirement does not “only add an intended use,” but rather “states an essential limitation to the claims,” the “clip” must be capable of that function – i.e., “for securing ends. . . .” See *Vizio, Inc. v. Int’l Trade Comm’n*, 605 F.3d 1330, 1340-41 (Fed. Cir. 2010) (citations omitted) (where a requirement “is the essence or a fundamental characteristic of the claimed invention,” the language “is properly construed as a claim limitation[] and not merely a statement of purpose or intended use for the invention”).

Therefore, the Court construes “a clip for securing ends of the series of links together” to mean “a connector that is capable of securing ends of a series of links together.”

#### **4. “supported on”**

Tristar requests that this term be construed. However, in the first Order on Claim Construction, the Court construed “supported on” together with the terms “base” and “at least one pin bar,” holding that “the parties’ underlying dispute over th[e] term [supported on] is resolved with the construction of the terms ‘base’ and ‘pin bar’ as being distinct structures.” See *Choon’s Design*, 2016 WL 1626574, at 6.

Tristar fails to establish a legitimate basis for why the Court should reconsider the conclusion in its previous order over a year and a half after it was entered. Tristar’s request to re-construe the term “supported on” is denied.

#### **5. “to define a desired relative special relationship between at least two adjacent pins”**

In relevant part, claim 12 of the ‘565 patent recites: “A method of creating a linked item comprising the steps of: supporting at least one pin bar including a plurality of pins to a base to define a desired relative special relationship between at least two adjacent pins. . . .” ‘565 patent, 6:7-11.

Tristar says the phrase “to define a desired relative special relationship between at least two adjacent pins” requires that a user be able to set a chosen distance between at least two adjacent pins.

Choon’s says the Court already construed this term. Choon’s also says, without any analysis or support, that its proposed construction most naturally aligns with the patent’s description.

Choon's arguments fail. Although the Court considered this phrase (i.e., "to define a desired relative special relationship. . .") in the first Order on Claim Construction, it did not construe it. See *Choon's Design*, 2016 WL 1626574, at \*6. Moreover, Choon's construction of the term is based on its rejected position that the pin bar(s) and base need not be separate parts.

The phrase "to define a desired relative special relationship between at least two adjacent pins" means "to set a desired alignment between at least two adjacent pins." "Alignment" is defined as "the act of aligning or state of being aligned; especially: the proper positioning or state of adjustment of parts . . . in relation to each other" See "alignment," *Merriam-Webster.com*, (2018) <https://www.merriam-webster.com/dictionary/alignment> (25 January 2018). The Court previously held that "'adjacent pins' includes pins in the same bar or pins opposite each other when their respective bars are juxtaposed." See *Choon's Design*, 2016 WL 1626574, at \*6.

This construction accurately represents the claim language and accounts for the ability of a user to create different patterns and pin spacing by configuring the pin bars and bases in various ways – which is supported by intrinsic evidence. The specification contains multiple disclosures of this:

*One or several pin bars 14 are mounted to several bases 12 as is shown to support the pin bars 14 and the corresponding pins 26 in a desired alignment. In this example, a center pin bar 14 is incremented one up from the two outermost pin bars 14. This alignment provides for creation of a desired linked item. In this example three bases 12 are utilized to support the pin bars 14 in a desired relative orientation.*

'565 patent, 2:46-53 (emphasis added).

FIG. 13 illustrates a configuration where five pin bars 14 are aligned side by side as provided by the additional bases 12 extending laterally as shown in FIG. 12. As is appreciated, *the extent to which additional bases*

*and pin bars 14 can be added and the configurations possible are limited only by the desire of the user of the disclosed kit. The addition of pin bars 14 provides for more unique and intricate designs limited only by the imagination of the user of the kit.*

'565 patent, 3:53-61 (emphasis added). The abstract further supports the ability of configuring the pin bars and bases in unique ways to allow for differing pin placement and the creation of different patterns:

*The example kit provides for the successful creation of unique wearable articles using Brunnian link assembly techniques and includes several pin bars that are supported in a desired special orientation by at least one base. The desired special orientation is dependent on the desired linked configuration of the completed article. The base and pin bars may be assembled in various combination and orientations to provide endless variation of completed link orientations.*

'565 patent, abstract (emphasis added).

## **B. The '420 Patent**

### ***1. “base,” “supported on,” “plurality of pins,” “a plurality of pins supported on the base,” “link,” and “a flared portion for holding a link in place”***

Because the '565 patent and '420 patent are related patents that rely on the same specification, the Court construes these terms in the same manner as construed for the '565 patent. See *In re Katz Interactive Call Processing Patent Lit.*, 639 F.3d 1303, 1325 (Fed. Cir. 2011) (“[W]e ordinarily interpret claims consistently across patents having the same specification.”). Choon’s and Tristar agree with this approach.

Except for “link,” which is construed above, the Court construed these terms in the first Order on Claim Construction. See *Choon’s Design*, 2016 WL 1626574, at \*4-7, \*9. The relevant discussion and constructions of the above terms from the first Order on Claim Construction are expressly incorporated here by reference.

## **2. “rows of offset pins”**

Tristar says the phrase “rows of offset pins” should require “the alignment of adjacent rows of pins be staggered relative to each other.” Choon’s agrees with this construction.

Accordingly, the Court’s construction conforms with the parties’ construction: the phrase “rows of offset pins” requires “the alignment of adjacent rows of pins be staggered relative to each other.”

## **3. “rows of offset pins spaced apart and extending upward from the base”**

This phrase is in claim 1 of the ‘420 patent. In relevant part, claim 1 states: “A device for creating an item consisting of a series of links, the device comprising: a base; and a plurality of pins supported on the base, . . . wherein the plurality of pins comprises rows of offset pins spaced apart and extending upward from the base.” See ‘420 patent, 5:18-26.

Tristar says the Court should construe “pins . . . extending upward from the base” to mean “pins extending from a pin bar attached to but detachable from a base.”

Choon’s says the Court should give this term its plain and ordinary meaning. Choon’s says Tristar adds several limitations not supported by the plain meaning of the claim term, and that Tristar is attempting to relitigate issues resolved by the Court’s earlier constructions. The Court agrees with Choon’s.

The parties’ dispute over the meaning of “pins . . . extending upward from the base” is resolved by viewing the phrase in light of the Court’s construction of the terms “base” (i.e., “a structure separate from the pin bar(s): its purpose is to locate or support the pin bar(s)”) and “pin bar” (i.e., an elongated member from which a plurality of pins

extend”), and by considering the phrase in the context of claim 1’s language as a whole. In light of the construction of these other terms, the phrase “pins . . . extending upward from the base” need not be further construed.

**C. The ‘441 Patent**

The only term from the ‘441 patent to be construed is “clip including inward facing ends.” Choon’s construes this term as “connector with the terminal portions proximate an opening.” Tristar agrees with this construction.

The Court agrees with the parties’ construction. The Court construes “clip including inward facing ends” to mean “connector with the terminal portions proximate an opening.”

**IV. CONCLUSION**

The claim constructions are set forth above and in the first Order on Claim Construction.

**IT IS ORDERED.**

s/Victoria A. Roberts  
Victoria A. Roberts  
United States District Judge

Dated: January 30, 2018